Claims:

1. A self-determination position device of a robot, comprising

a robot body;

at least two driving wheels locating in two opposed sides of said robot body;

at least two power portions providing power for said driving wheels, each of which comprises:

a decelerator connecting with a wheel shaft of said driving wheels through a power inputting portion;

a motor connecting with the power inputting portion of said decelerator through an outputting shaft;

at least two driven wheels providing on said robot body, on which there are a plurality of grids along circumference direction taking the driven wheel axle as the center;

and at least two pairs of sensors locating in two outsides of each driven wheel, said each pair of sensors including an emitting part and a receiving part which faces toward the emitting part and moreover, can receive signals sent from the emitting part through the grids;

wherein said driving wheels are driven to rotate by the motor and said driven wheels are rotated by the movement of the robot body, and when the driven wheels are rotated in a positive or negative direction, said pairs of sensors are able to measure the angles of rotation in positive or negative direction and convert them into positive or negative counting signals for calculating the position of the robot body.

2. The self-determination position device of a robot as claimed in claim 1, wherein two said driven wheels are rotatably arranged on the wheel shaft of the two opposed driving wheels with the driven wheels coaxial with the driving wheels, and a diameter of the driven wheels is the same as the diameter of said driving wheels.

3. The self-determination position device of a robot as claimed in claim 2 further comprising an extending arm provided on the motors, and said extending arm has two ends extending along two outsides of each driven wheels.

4. The self-determination position device of a robot as claimed in claim 3, wherein there are two pairs of sensors, the emitting part and the receiving part of each pair of sensors providing on the two ends of the extending arm, respectively.

5. The self-determination position device of a robot as claimed in claim 1, wherein there are two driven wheels, both of which located in front of the driving wheels or located in back of the driving wheels.

6. The self-determination position device of a robot as claimed in claim 5 further comprising an extending arm provided on the robot body, and said extending arm has two ends extending along two outsides of each driven wheels.

7. The self-determination position device of a robot as claimed in claim 6, wherein

there are two pairs of sensors, the emitting part and the receiving part of said each pair of sensors providing on the two ends of the extending arm, respectively.

8. The self-determination position device of a robot as claimed in claim 1, wherein the driven wheels include first driven wheel and second driven wheel, an axle-line of first driven wheel in parallel to the horizontal plane and an axle-line of second driven wheel perpendicular to the horizontal plane.

9. The self-determination position device of a robot as claimed in claim 8 further comprising an extending arm provided on the robot body, two ends of which extend along two outsides of the first driven wheel and are provided with two pairs of sensors respectively, and a driven wheel base of the second driven wheel is provided with two pairs of sensors.

10. The self-determination position device of a robot as claimed in any one claim from 1 to 9, wherein an angle between two connecting lines lying between the axle of the driven wheel and two sensors $\alpha=360n/Nz+90/Nz$, wherein n is an integer, and Nz is the number of grids.